241

11. A nucleic acid comprising one or more regulatory regions comprising a promoter, the promoter recognized by RNA polymerase 2 and operatively linked to a sequence encoding a chimeric influenza hemagglutinin (HA) polypeptide, the chimeric influenza HA polypeptide comprising a stem domain cluster (SDC), a head domain cluster (HDC) and a transmembrane domain cluster (TDC), the one or more regulatory regions further including a 5'UTR and 3'UTR,

wherein

- a) the SDC comprises an F'1, F'2 and F subdomain;
- b) the HDC comprises a receptor binding (RB) subdomain, vestigial esterase subdomain E1 (E1) and vestigial esterase subdomain E2 (E2);
- c) the TDC comprises a transmembrane (TmD) and C terminal tail (CT) subdomain; and
- wherein the HDC and SDC subdomain is obtained from influenza H3, H6 or B, and the TDC is obtained from influenza H1 or H5 wherein the F'1 subdomain is fused to a native or plant derived signal peptide, and the 3'UTR and 5'UTR is heterologous to the sequence encoding the influenza H1, H3, H5, H6 or B HA.
- 12. A method of producing chimeric influenza HA protein in a plant comprising:
 - a) introducing the nucleic acid of claim 11 into the plant, ²⁵ or portion thereof

242

- b) incubating the plant, or portion thereof, under conditions that permit the expression of the nucleic acid, thereby producing the chimeric influenza HA protein;
 and
- c) harvesting the plant and obtaining the chimeric influenza HA protein.
- 13. The nucleic acid of claim 2 wherein the HA native signal peptide sequence is selected from an influenza H5 signal peptide sequence and an influenza H1 signal peptide sequence.
 - 14. A polypeptide encoded by the nucleic acid of claim 11.
- 15. A plant cell comprising a polypeptide encoded by the nucleic acid of claim 11.
- **16**. The nucleic acid of claim **11**, wherein the 5'UTR and 3'UTR are obtained from a plastocyanin UTR or Cowpea Mosaic Virus (CPMV) UTR.
- 17. A method of producing chimeric influenza virus like particles (VLPs) in a plant comprising:
 - a) introducing the nucleic acid of claim 16 into the plant, or portion thereof using agroinfiltration;
 - b) incubating the plant, or portion thereof, under conditions that permit the expression of the nucleic acid, thereby producing the chimeric VLPs; and
 - c) harvesting the plant and obtaining the chimeric VLPs.

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